

REMARKS

Claims 1-2 and 4-11 are pending in the present application. Applicant has amended claims 1, 7, and 9, and has canceled claims 4, 8, and 10. No new matter has been added.

The Examiner is maintaining the rejection of claims 1-2, 4 and 7-11 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,462,798 (Kim, *et al.*) in view of U.S. Patent No. 4,917,471 (Takeo, *et al.*). The Examiner also maintained the rejection of claims 5-6 under 35 U.S.C. §103(a) as obvious over Kim in view of Takeo and further in view of U.S. Patent No. 6,275,274 (Kanemori, *et al.*).

In addition, the Examiner rejected claims 1, 4, 7, and 9-11 under 35 U.S.C. §103(a) as obvious over Kim in view of U.S. Patent No. 4,632,514 (Ogawa, *et al.*). The Examiner rejected claims 5-6 under 35 U.S.C. §103(a) as obvious over Kim in view of Ogawa and further in view of Kanemori.

Applicant respectfully traverses these rejections.

Applicant urges that the Examiner has failed to make out a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the combination of prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

Applicant's amended claim 1 is directed to a liquid crystal display that includes, *inter alia*, "a pixel electrode . . . with a first opening pattern", and "a common electrode . . . having a second opening pattern", "wherein the first and the second opening patterns partition the pixel region into a plurality of micro-domains". Applicant's amended claim 9 is directed to a method of manufacturing a liquid crystal display that includes, *inter alia*, "forming a pixel

electrode . . . with a first opening pattern”, and “forming a common electrode. . . having a second opening pattern”, “wherein at least one of the first and second opening patterns partitions the pixel region into a plurality of micro-domains”. Claims 1 and 9 were amended by incorporating the elements of claims 4 and 10, respectively. Ogawa is directed to a twisted nematic color liquid crystal display device where the thickness of the liquid crystal layer is different for different color picture elements. There is no teaching or suggestion in Ogawa of “a pixel electrode . . . with a first opening pattern”, and “a common electrode . . . having a second opening pattern”, “wherein the first and the second opening patterns partition the pixel region into a plurality of micro-domains”, as recited in amended claims 1 and 9. The Examiner alleges that the combination of either Kim and Takao, or Kim and Ogawa, teach the limitations of claims 4 and 10. Applicant disagrees, and urges that there is no motivation or suggestion to combine these references. Applicant’s specification teaches a synergistic effect of combining “differentiating a B cell gap from an R cell gap or a G cell gap” and “forming a pixel electrode . . . with a first opening pattern” and “forming a common electrode . . . having a second opening pattern”. The synergistic effect is such that the patterned pixel and common electrodes can enhance the effect of cell gap differentiation, so that even a small cell gap difference can induce a reduction in color shift. There is no teaching or suggestion in Kim, Takao, or Ogawa to motivate combining Kim and Takao or Kim and Ogawa to achieve this synergistic effect. Applicant urges that the Examiner has relied upon improper hindsight gained from Applicant’s disclosure in combining these references. Accordingly, Applicant urges that a *prima facie* case of obviousness of amended claims 1 and 9 over either Kim and Takao or Kim and Ogawa cannot be maintained. Reconsideration and withdraw of this rejection are respectfully requested.

Applicant’s amended claim 7 is directed to a color filter substrate for a liquid crystal display that includes, *inter alia*, “color filters of red, green and blue formed at the pixel regions . . . wherein the thickness of the blue color filter is larger than the red color filter or the green color filter by $0.1 \pm 0.35 \mu\text{m}$ ”. This amendment incorporates a limitation of claim 8, now canceled, into claim 7. The Examiner conceded that Kin did not teach a display wherein a B cell gap is differentiated from a R cell gap or a G cell gap, and cited both Takao and

Ogawa as teaching such a limitation. Applicant notes that Takao teaches that a cell gap difference less than $0.1\mu\text{m}$ will not cause a problem but $0.3\mu\text{m}$ cell gap difference will cause a problem in aligning liquid crystals. Accordingly, the amended range of claim 7 is outside of the range taught or suggested in Takao. Further, the thickness ranges recited in amended claim 7 are outside the thickness ranges disclosed in Ogawa, which discloses either filters of the same thickness, or filters wherein the thickness of the blue filter is more than $1.1\mu\text{m}$ thicker than the green filter or the red filter. Therefore, Applicant urges that a *prima facie* case of obviousness of Applicant's amended claim 7 cannot be maintained either over Kim and Takao, or over Kim and Ogawa. Reconsideration and withdraw of this rejection are respectfully requested.

Claims 2 and 11 depend from claims 1 and 9, respectively, and are thus patentable for at least the same reasons as claims 1 and 9. Reconsideration and withdraw of these rejections are respectfully requested.

Claims 5 and 6 depend from amended claim 1. The Examiner cited Kanemori as teaching a display "wherein the micro-domains are classified into left and right domains, and upper and lower domains, the volume occupied by the upper and lower domains being larger than the volume occupied by the left and right domains", as recited in claim 5, and as teaching a display "wherein the distance between two neighboring second wiring lines is repeatedly varied per a predetermined length, and the pixel electrode has lateral sides positioned close to the second wiring lines with the same outline . . .", as recited in claim 6. However, for the reasons stated above, Applicant urges that there is no motivation or suggestion in Kim, Takao, or Ogawa to motivate combining Kim and Takao or Kim and Ogawa to achieve the synergistic effect of combining "differentiating a B cell gap from an R cell gap or a G cell gap" and "forming a pixel electrode . . . with a first opening pattern" and "forming a common electrode . . . having a second opening pattern", and further combining Kim and Takao with Kanemori or Kim and Ogawa with Kanemori does not rectify these deficiencies. Thus, Applicant urges that a *prima facie* case of obviousness of claims 5 and 6 over either Kim, Takao and Kanemori, or Kim, Ogawa and Kanemori cannot be maintained.

Reconsideration and withdraw of these rejections are respectfully requested.

With regard to the Examiner's response to Applicant's arguments in the response dated July 20, 2004, Applicant notes first that the Examiner did, in the Office Action dated April 20, 2004⁵, cite Takao as teaching a results effective variable wherein the B cell gap, the R cell gap, and G cell gap are differentiated from each other, and second, that these limitations were present in claim 3 at that time. Furthermore, Applicant notes that a dependent claim defines a patentable invention if its base claim does, thus there is no need to present specific arguments opposing a rejection of a dependent claim once arguments have been presented opposing the rejection of the base claim. Thus, the Examiner is being presumptuous in concluding that because Applicant's arguments regarding the base claims are allegedly rebutted, Applicant has acquiesced to the Examiner's specific rejection of the dependent claims.

CONCLUSION

Applicant urges that claims 1-2, 5-7, 9 and 11, as amended, are in condition for allowance for at least the reasons stated. Early and favorable action on this case is respectfully requested.

Respectfully submitted,

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